EXHIBIT A

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UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

GEN-PROBE INCORPORATED, Plaintiff, v. VYSIS, INC., Defendant.	No. 99CV2668H AJB **SECOND AMENDED COMPLAINT FOR DECLARATORY RELIEF AND UNFAIR COMPETITION**

PLAINTIFF GEN-PROBE ALLEGES:

INTRODUCTION

1. This action concerns the nature and scope of any obligation of plaintiff Gen-Probe Incorporated ("Gen-Probe") to make royalty payments to defendant Vysis, Inc. ("Vysis") pursuant to a patent license agreement between the parties ("the License") in light of the invalidity and non-infringement of United States Patent No. 5,750,338 ("the '338 patent") that is a subject of that

License. As set forth below, Gen-Probe asks this Court to declare the '338 patent invalid and further to declare that Gen-Probe's current and anticipated activities do not infringe any valid claims of the '338 patent. As a corollary to those declarations, Gen-Probe also asks this court to declare its rights and obligations under the terms of the parties' License. Finally, Gen-Probe also seeks relief from Vysis' continuing acts of wrongful and unfair conduct with respect to the '338 patent.

THE PARTIES

2. Gen-Probe was founded in San Diego in 1984 as a small "start up" company, seeking to develop products based on the discoveries of a local research scientist. Over time, Gen-Probe became one of the largest biotechnology firms in San Diego. Gen-Probe now maintains its principal offices and research facilities at 10210 Genetic Center Drive in San Diego, where it employs over 500 scientists and staff. Gen-Probe is organized under the laws of the State of Delaware.

3. Gen-Probe is informed and believes that defendant Vysis, Inc. (hereinafter "Vysis" or "the defendant") is a corporation organized and incorporated under the laws of the State of Delaware. Gen-Probe is further informed and believes that Vysis maintains its principal place of business in Downers Grove, Illinois and that it is controlled by BP Amoco, Inc.

JURISDICTION AND VENUE

4. Counts One and Two of this Complaint seek declaratory relief under the Declaratory Judgment Act, Title 28, United States Code, Sections 2201 and 2202. This Court has subject matter jurisdiction of the claims asserted thereunder by reason of Title 28, United States Code, Sections 1331, 1338(a), 1338(b) and 1367.

5. Venue is proper in this District under Title 28, United States Code, Sections 1391(b) and 1400(b).

BACKGROUND

6. Living cells store genetic information in molecules of nucleic acid known as DNA. These molecules consist of long, thin, chain-like strands which, in turn, are usually found in the form of two tightly bound, complementary chains. DNA molecules retain their genetic information

in the form of a genetic code. The information in the DNA determines the life processes of each organism. The information in the DNA is used to make related nucleic acid molecules called RNA that cells use to manufacture proteins.

7. Through the work of its scientists and staff, Gen-Probe has developed and continues to develop diagnostic tests that seek out the DNA or RNA of the infectious organisms. These types of tests are generally referred to as "genetic probes" or "nucleic acid tests" ("NAT"). Gen-Probe now markets DNA probe products that test for a wide range of microorganisms that cause tuberculosis, strep throat, pneumonia, fungal infections and sexually transmitted diseases. Through the efforts of its scientists and staff, Gen-Probe has emerged as the recognized world leader in the development, manufacture and commercialization of diagnostic products based on its patented genetic probe technology. Gen-Probe has received over 40 FDA clearances and approvals for genetic probe tests to detect a wide range of microorganisms, including Chlamydia trachomatis, Mycobacterium tuberculosis and Neisseria gonorrhoeae.

8. Many human diseases are caused by bacterial or viral agents that invade living cells. Historically, the presence of these bacterial or viral agents was detected directly by time-consuming methods such as culture or indirectly through the detection of antibodies. Unfortunately, it takes time, sometimes weeks or months, to grow organisms in culture, and it usually takes months for the body to manufacture antibodies in sufficient amounts to reveal the presence of infectious agents. Consequently, these methods do not lend themselves to early detection of infection. NAT addresses this problem.

9. Among the disease detection technologies recently applied by Gen-Probe is its patented nucleic acid technology known as "Transcription-Mediated Amplification" ("TMA"). This technology enables Gen-Probe's NAT products to detect extraordinarily small quantities of the nucleic acids of infectious agents.

10. In September 1996, Gen-Probe received a $7.7 million grant from the National Institutes of Health to develop TMA-based nucleic acid tests to be used in screening donated blood for and human immunodeficiency virus (HIV), the causative agent of AIDS, and hepatitis C virus (HCV), which causes a severe form of hepatitis.

11. At the time of the NIH grant to Gen-Probe, donated blood was principally tested by procedures that detected the presence of antibodies to the viruses being screened. Due to the time it takes for the body to make antibodies after initial infection, donated blood may test negative for antibodies, yet still carry infectious viruses. This delay between the time of actual infection and the time that antibodies can first be detected is often known as the "window period." Reduction of this "window period" was a significant concern of the United States government and the primary focus of the grant to Gen-Probe to develop NAT diagnostics for use in blood screening.

12. In fulfilling its obligations under the grant, Gen-Probe developed NAT tests to detect the DNAs of HIV and hepatitis C in blood. Through the use of its NAT test, Gen-Probe believes that researchers and medical personnel may rapidly and *directly* detect the presence of genetic material of viruses like HIV and HCV more accurately and without the complications and delay associated with conventional *indirect* tests. As such, Gen-Probe believes that its new test may significantly reduce the "window period" for detection of these extremely harmful viral agents and resulting diseases.

13. Final development of the NAT tests for blood screening in the United States is now taking place in testing conducted by the American Red Cross, America's Blood Centers, and others. ("A Purity Quest; Local Biotech's Ultra-Sensitive Blood Screening Could Cut Risk of AIDS, Hepatitis," *San Diego Union*, March 25, 1999, page C-1.) Use of the tests in the United States is made pursuant to an Investigational New Drug Application filed with the United States Food and Drug Administration. In blood tested by the American Red Cross, Gen-Probe's products have detected hepatitis C and HIV which escaped detection by prior methods. ("New Blood Screening Finds Virus Others Missed; Experimental Test Turns Up Hepatitis C In Donated Blood," *San Diego Union*, April 2, 1999, page B-2.)

14. On September 21, 1999, the French Ministry of Health approved the sale of the Gen-Probe blood screening tests in France. Gen-Probe anticipates approval of its tests for us in Australia in early 2000.

15. Gen-Probe has entered into an agreement with Chiron Corporation ("Chiron") of Emeryville, California, with respect to the development, manufacture, and distribution of blood

screening products. Gen-Probe is also a party to an agreement with Bayer Corporation ("Bayer") of Emeryville, California with respect to the development, manufacture, and distribution of clinical diagnostic products for the detection of HIV and hepatitis C, among other pathogens.

16. Gen-Probe anticipates that additional clinical trials in the United States of its HIV/HCV tests for use in blood screening and in clinical diagnostics will commence in the first part of 2000. Gen-Probe anticipates the conclusion of those clinical trials, and the initiation of commercial sales in the United States of kits containing its HIV/HCV blood screening test, during 2000.

17. All of the Gen-Probe products are manufactured in San Diego, California.

THE '338 PATENT

18. Gen-Probe is informed and believes that on or about May 12, 1998, the United States Patent and Trademark Office issued United States Patent No. 5,750,338 ("the '338 patent") based upon Patent Application No. 238,080 filed on May 3, 1994.

19. Gen-Probe is informed and believes that defendant Vysis claims to be the owner, by assignment, of the entire right, title and interest of the '338 patent. The claims of the '338 patent purport to relate to assays and probes for polynucleotide molecules such as DNA and RNA.

20. In early 1999, Vysis informed Gen-Probe that it believed that the '338 patent "applied" to Gen-Probe's NAT blood screening tests for HIV and HCV. Following further discussions and to avoid any complications in Gen-Probe's plans for commercial deployment of its NAT test kits, as of June 22, 1999 Gen-Probe obtained a license ("the License") from Vysis under the '338 patent. Gen-Probe also obtained options to the License for its relationships with Chiron and Bayer.

21. Under the terms of the License, Vysis requires Gen-Probe (and its allied parties if the options are exercised) to make significant financial payments to Vysis as royalties on the sale of any product covered by any valid claims of the '338 patent.

22. Notwithstanding the existence of the License, and as further alleged herein, Gen-Probe believes that the claims of '338 patent are invalid in all material respects. Furthermore, Gen-Probe believes that its NAT blood screening tests do not infringe any valid claim of the '338 patent.

As such, Gen-Probe disagrees with Vysis' contention that the claims of the '338 patent "apply" to Gen-Probe's activities and contemplated products. For these same reasons, Gen-Probe contends that it has no obligation to make any royalty payments to Vysis with respect to its present products and activities and any contemplated products and activities that Vysis may later claim infringe the claims of the '338 patent.

23. Gen-Probe has communicated to Vysis its belief that the claims of the '338 patent are invalid. In support of that belief, Gen-Probe has provided Vysis with information that demonstrates that the claims of the '338 patent are invalid. Gen-Probe has also advised Vysis of its belief that its NAT test kits for use in detecting HCV and HIV in the Nation's blood supply do not and will not infringe any valid claims of the '338 patent.

24. Notwithstanding its receipt of the foregoing information, Vysis persists in its assertion that the claims of the '338 patent are valid and enforceable and that Gen-Probe is obligated to make royalty payments in accordance with the terms of the License.

25. Based upon a long history of litigation between Gen-Probe and Vysis and its affiliates, Gen-Probe reasonably anticipates that should it fail to pay royalties pursuant to the License, Vysis will aggressively attempt to enforce its perceived rights under both the License and the '338 patent by terminating the License and by initiating litigation against Gen-Probe, its allied parties, and customers.

26. An actual case or controversy exists between Gen-Probe and Vysis concerning the validity and infringement of the '338 patent and Gen-Probe's rights and obligations under the License. The determination of the issues presented in this complaint will inure to the greater public benefit and good.

COUNT ONE

NON-INFRINGEMENT OF THE '338 PATENT

27. Gen-Probe repeats, repleads and incorporates herein the allegations of paragraphs 1 through 26 of this complaint.

28. Gen-Probe's NAT test kits for use in detecting HCV and HIV in the Nation's blood supply do not and will not infringe any valid claims of the '338 patent.

COUNT TWO

INVALIDITY OF THE '338 PATENT

29. Gen-Probe repeats, repleads and incorporates herein the allegations of paragraphs 1 through 26 of this complaint.

30. The claims of the '338 patent are invalid by reason of one or more provisions of Title 35 of the United States Code.

COUNT THREE

DECLARATORY RELIEF

31. Gen-Probe repeats, repleads and incorporates herein the allegations of paragraphs 1 through 26 of this complaint.

32. An actual controversy has arisen and now exists concerning the rights and obligations of Gen-Probe pursuant to the terms of the parties' License. Those disputes arise from and their resolution depends upon the federal patent laws.

33. Gen-Probe seeks a declaration of its rights and obligations under the License, particularly in light of the invalidity and non-infringement of the '338 patent and defendant's acts of unfair competition as alleged herein.

COUNT FOUR

UNFAIR COMPETITION

34. Gen-Probe repeats, repleads and incorporates herein the allegations of paragraphs 1 through 33 of this complaint.

35. Vysis knows or should know the underlying facts establishing the invalidity and/or unenforceability of the claims of the '338 patent. In continuing to enforce the claims of the '338 patent, Vysis has acted and continues to act unfairly, inequitably and in bad faith. In addition, Vysis' actions constitute unlawful, unfair or fraudulent business practices under California Business & Professions Code Sections 17200, *et seq.*

36. By reason of the aforementioned acts of unfair competition and unlawful, unfair and fraudulent business practices, Gen-Probe is entitled to damages, as established at time of trial, restitution and injunctive relief.

COUNT FIVE

UNENFORCEABILITY OF THE '338 PATENT

37. Gen-Probe repeats, repleads and incorporates herein the allegations of paragraphs 1 through 36 of this complaint.

38. Applicants for patents have a general duty of candor and good faith in their dealings with the Patent and Trademark Office (the "Patent Office") and an affirmative obligation to disclose to the Patent Office all information that they know to be material to the examination of a pending application pursuant to 37 C.F.R. § 1.56. This duty extends to the applicants and their representatives, such as their attorneys, and all others associated with the prosecution, including every person who is substantively involved in the preparation or prosecution of the application.

39. Gen-Probe is informed and believes, and thereon alleges, that Vysis or its predecessors-in-interest and their agents (hereinafter collectively referred to as "the applicants") knowingly and willfully concealed and misrepresented material evidence during the prosecution of the '338 patent applications and that by such inequitable conduct, the '338 patent is unenforceable against Gen-Probe for the reasons that follow.

FACTS RELATED TO THE ABANDONMENT OF THE CLAIMED INVENTION OF NUCLEIC ACID AMPLIFICATION

40. On October 23, 1986, the applicants filed a patent application entitled "Target and Background Capture Methods and Apparatus for Affinity Assays." After filing, the Patent Office assigned that application the numerical designation, Serial No. 06/922,155 (the "'155 application"). Although, the '155 application purported to describe a technique for reversible target capture, it contained no disclosure of or claims to amplification techniques as claimed by Vysis in the '338 patent. The applicants identified Mark L. Collins as the sole inventor of the alleged inventions claimed in the '155 application.

41. On December 21, 1987, prior to substantive examination of the '155 application by the Patent Office, Vysis filed a Continuation-in-Part of the '155 application. The Patent Office assigned this Continuation-in-Part application Serial No. 07/136,920 (the "'920 application"). The applicants entitled the '920 application "Target and Background Capture Methods with

Amplification," and initially submitted claims in the '920 application to a method of nucleic acid amplification (claims 1-23), and a claim to an instrument for performing assays for target polynucleotides (claim 24).

42. In its initial examination of the '920 application, the Patent Office issued a restriction requirement because it deemed the claimed inventions of the amplification and instrument claims of the '920 application as distinct. In response to that restriction requirement, the applicants elected to proceed in the '920 application by prosecuting only the amplification claims (claims 1-23).

43. On July 20, 1990, following the applicants' election to proceed with only the amplification claims in the '920 application, the Patent Office issued an office action regarding that application by which it rejected all claims of the '920 application on prior art and other grounds of patentability. The Patent Office provided the applicants until October 20, 1990, with extensions available until January 20, 1991, to submit a substantive response to that office action.

44. Rather than prepare a substantive response to the July 20, 1990 office action, and in order to continue prosecuting claims to a method of nucleic acid amplification, on January 22, 1991, the applicants filed a continuing application from the '920 application. The Patent Office designated this continuing application as application Serial No. 07/644,967 (the "'967 application"). Concurrent with the filing of the '967 application, the applicants then expressly abandoned the '920 application.

45. On March 12, 1991, the Patent Office issued an office action for the '967 application by which it issued a final rejection of the claims submitted with that application. Pursuant to statute, the Patent Office provided the applicants with a shortened response period until June 12, 1992, with extensions available until September 12, 1992, to respond to this final rejection of the claims of the '967 application.

46. Again rather than prepare a substantive response to the March 12, 1992, office action, and in order to continue prosecuting claims to a method of nucleic acid amplification, on September 14, 1992, the applicants filed a continuation application to the '967 application. The Patent Office designated this further continuation application Serial No. 07/944,505 (the "'505

application"). Consistent with continuation practice and rules, the applicants presented only claims to a method of nucleic acid amplification the '505 application, all other claims having been withdrawn by prior election. Concurrent with their filing of the '505 application, the applicants then expressly abandoned the '967 application.

47. On November 5, 1992, the Patent Office issued an office action for the '505 application by which it issued a final rejection of the claims submitted with that application. Pursuant to statute, the Patent Office provided the applicants with a shortened response period until February 5, 1993, with extensions available until May 5, 1993, to respond to this final rejection of the claims of the '505 application.

48. With the applicants' express knowledge and awareness of the requirement to respond to the November 5, 1992, office action within the statutorily required time and the further knowledge of the consequences of abandonment arising from any failure to respond within that required time, applicants intentionally elected not to respond to the office action.

49. Consistent with Patent Office rules and procedures, following the applicants' failure to respond to the November 5, 1992, office action, on June 16,1993, the Patent Office sent a formal notice of abandonment of the '505 application to the applicants. Again, however, consistent with the applicants' intentional decision not to respond to the office action, the applicants intentionally determined not to respond to the notice of abandonment.

FACTS RELATED TO THE PROSECUTION OF THE ALLEGED INSTRUMENT INVENTION

50. Gen-Probe is informed and believes, and thereon alleges, that the applicants intentionally failed to respond to the November 5, 1992, office action rejecting the claims of the '505 application and further intentionally failed to respond to the June 16, 1993 notice of abandonment as a result of their decision to abandon the alleged invention directed to a method of nucleic acid amplification originally elected for prosecution in the '920, '967 and '505 applications.

51. On January 31, 1991, consistent with the applicants' decision to acquiesce to the Patent Office's July 20, 1990, restriction requirement issued with respect to the distinct claimed inventions that applicants presented in the '920 application, the applicants filed a separate application by which they elected to prosecute only instrument-related claims originally presented

as claim 24 of the '920 application. The Patent Office assigned this instrument application Serial No. 07/648,468 (the "'468 application"). As originally filed and consistent with the restriction requirement, in the '468 application, the applicants submitted only claims directed to an instrument for performing assays for target polynucleotides. The applicants entitled the '468 application "Closed Vessel for Isolating Target Molecules and for Performing Amplification."

52. Through their '468 application, the applicants claimed priority of their instrument invention as a continuation-in-part application to the '920 and earlier '155 applications. However, applicants' claim to priority to the '920 and '155 applications was defective as it violated the requirement that the '468 application have been filed prior to the abandonment of the priority applications. In this case, although the applicants filed the '468 application on January 31, 1991, they intentionally abandoned the '920 application on January 22, 1991 and intentionally abandoned the '155 application on February 3, 1990. The applicants intentionally failed to disclose this lack of co-pendency of the '468 application during the prosecution of the '468 application.

53. The Patent Office initially rejected all the claims of the '468 application on prior art and other grounds of patentability in an office action mailed March 18, 1992. The Patent Office provided the applicants until June 18, 1992, with extensions available until September 18, 1992, to submit a substantive response to that office action.

54. Rather than prepare a substantive response to the March 18, 1992 office action, and in order to continue prosecuting claims to an instrument for performing assays for target polynucleotides, on September 17, 1992, the applicants filed a continuing application from the '468 application. The Patent Office designated this continuing application as application Serial No. 07/946,749 (the "'749 application"). Consistent with the restriction requirement originally issued in the '920 application, the applicants submitted only claims directed to an instrument for performing assays for target polynucleotides in the '749 application. Concurrent with the filing of the '749 application, the applicants then expressly abandoned the '468 application.

55. The Patent Office initially rejected all the claims of the '749 application on prior art and other grounds of patentability in an office action mailed March 22, 1993. The Patent Office provided the applicants until June 22, 1993, with extensions available until September 22, 1993, to

submit a substantive response to that office action.

56. Rather than prepare a substantive response to the March 22, 1993 office action, and in order to continue prosecuting claims to an instrument for performing assays for target polynucleotides, on September 21, 1993, the applicants filed a continuing application from the '749 application. The Patent Office designated this continuing application as application Serial No. 08/124,826 (the "'826 application"). Consistent with the restriction requirement originally issued in the '920 application, the applicants submitted only claims directed to an instrument for performing assays for target polynucleotides in the '826 application. Concurrent with the filing of the '826 application, the applicants then expressly abandoned the '749 application.

57. The Patent Office initially and finally rejected all the claims of the '826 application on prior art and other grounds of patentability in an office action mailed December 9, 1993. The Patent Office provided the applicants until March 9, 1994, with extensions available until June 9, 1994, to submit a substantive response to that office action.

58. Rather than prepare a substantive response to the December 9, 1993 office action, and in order to continue prosecuting claims to an instrument for performing assays for target polynucleotides, on June 8, 1994, the applicants filed a continuing application from the '826 application. The Patent Office designated this continuing application as application Serial No. 08/257,469 (the "'469 application"). Consistent with the restriction requirement originally issued in the '920 application, the applicants submitted only claims directed to an instrument for performing assays for target polynucleotides in the '469 application. Concurrent with the filing of the '469 application, the applicants then expressly abandoned the '826 application.

59. The Patent Office initially and finally rejected all the claims of the '469 application on prior art and other grounds of patentability in an office action mailed September 12, 1994. The Patent Office provided the applicants until December 12, 1994, with extensions available until March 12, 1995, to submit a substantive response to that office action.

60. Rather than prepare a substantive response to the December 12, 1994 office action, and in order to continue prosecuting claims to an instrument for performing assays for target polynucleotides, on March 8, 1995, the applicants filed a continuing application from the '469

application. The Patent Office designated this continuing application as application Serial No. 08/400,657 (the "'657 application"). Consistent with the restriction requirement originally issued in the '920 application, the applicants submitted only claims directed to an instrument for performing assays for target polynucleotides in the '657 application. Concurrent with the filing of the '657 application, the applicants then expressly abandoned the '469 application.

61. The Patent Office initially and finally rejected all the claims of the '657 application on prior art and other grounds of patentability in an office action mailed April 25, 1995. The Patent Office provided the applicants until July 5, 1995, with extensions available until October 5, 1995, to submit a substantive response to that office action.

62. Rather than prepare a substantive response to the April 25, 1995 office action, on October 25, 1995, the applicants submitted a notice of appeal of the '657 application. Rather than file an appeal brief, and in order to continue prosecuting claims to an instrument for performing assays for target polynucleotides, on March 25, 1996, the applicants filed a continuing application from the '657 application. The Patent Office designated this continuing application as application Serial No. 08/622,491 (the "'491 application"). Consistent with the restriction requirement originally issued in the '920 application, the applicants submitted only claims directed to an instrument for performing assays for target polynucleotides in the '491 application. Concurrent with the filing of the '491 application, the applicants then expressly abandoned the '657 application.

APPLICANTS' EFFORTS TO OVERCOME THEIR INTENTIONAL ABANDONMENT OF THE '505 APPLICATION AND THEIR ALLEGED CLAIMS TO A METHOD OF AMPLIFICATION

63. Gen-Probe is informed and believes, and based thereon alleges, that sometime on or before May 3, 1994, the applicants determined to attempt to reverse their prior intentional abandonment of the alleged invention directed to a method of nucleic acid amplification. As a result of that determination, on May 3, 1994, fifteen months after they failed to respond to the shortened statutory response to the office action of November 5, 1993 and almost eleven months after they further failed to respond to the formal notice of abandonment, applicants attempted to revive their '505 application by filing a formal petition to revive the '505 application. In that

petition, the applicants misrepresented the fact concerning their prior intentional abandonment of the '505 application and claimed that they "unintentionally" failed to respond to the Patent Office. The applicants stated that "[t]he abandonment occurred as a result of the oversight of Applicants representative and was not intended by Applicants."

64. As set forth above, the applicants' claim of unintentional abandonment of the '505 was false. Gen-Probe is informed and believes, and based thereon alleges, that the applicants' failure to respond to the Patent Office's rejection of the claims of '505 application directed to the claimed invention of a method of nuclei acid amplification was intentional. Indeed, the applicants' intentional decision not to respond to the '505 office action was consistent with and driven by applicants' underlying decision to abandon the invention claimed in the '505 application.

65. On October 27, 1994, the Patent Office rendered a decision denying the applicants' petition to revive the '505 application. As the Patent Office explained, the '505 application became abandoned on February 6, 1993, when the applicants failed to respond to the office action of November 5, 1992. Because the petition to revive the '505 application was filed more than one year after the '505 application became abandoned, the petition was barred under 37 C.F.R. 1.137(b). Accordingly, the Patent Office refused to revive the '505 application under 37 C.F.R. 1.137(b).

66. The Patent Office informed the applicants that they might be able to revive the '505 application under the provisions of 37 C.F.R. 1.137(a). However, the Patent Office explained that "in view of the fact that this case has been abandoned for an inordinate period of time, petitioner must show diligence between the time of becoming aware of the abandonment of the above-identified application and the filing of a petition to revive."

67. The applicants declined to seek relief pursuant to 37 C.F.R. 1.137(a), thereby acquiescing to the Patent Office's determination that the '505 patent was abandoned on February 6, 1993.

68. Concurrent with their ultimately unsuccessful effort to revive the '505 application, on May 3, 1994, the applicants filed a new original application that the Patent Office designated as Serial No. 08/238,080 (the "'080 application"), filed. In the '080 application, the applicants did not

initially disclose to the Patent Office that the application was virtually identical to that they intentionally abandoned in the '505 application or of the fact of that abandonment. In addition, the applicants also failed initially to disclose the fact of their concurrent efforts to revive the '505 application. Furthermore, notwithstanding the fact that the applicants knew and intended that the '080 application should be treated as a new original application, applicants did not submit new oaths from the alleged inventors for the '080 application. The applicants also failed to disclose to the Patent Office that, as an original application, the claims of the '080 application were anticipated by the prior publication on August 23, 1989, of the applicants' own European application corresponding to the '920 application, European Application No. 88312135.2.

69. As a result of the applicants' intention to treat the '080 application as an original application and their concurrent failure to submit new oaths to support that application, on June 3, 1994, the Patent Office issued a notice to the applicants by which the Patent Office indicated that it had noted that the applicants had failed to file proper oaths or declarations for the '080 application.

70. In response to the Patent Office's notice to file the missing oaths necessary to support the '080 application, on February July 5, 1994, the applicants submitted a formal response to that notice by which response the applicants first disclosed the prior abandonment of the '505 application and petitioned the Patent Office to consider the '080 application as a continuation application to the '505 application. By that response, the applicants' concurrently petitioned the Patent Office to consider the '080 application as filed under 37 C.F.R. § 1.60 as a continuation of their previously abandoned '505 application. However, through this response and the petition incorporated therein, the applicants continued to misrepresent the prior abandonment of the '505 application and invention as "unintentional."

71. On October 27, 1994, the Patent Office formally dismissed the applicants' petition to revive the '505 application. The applicants did not disclose that decision to the branch of the Patent Office handling the applications' petition in the '080 application to treat the '080 application as a continuation application to the '505 application. In any event, however, on March 14, 1995, the Patent Office formally dismissed that petition as moot and declared that the '080 application would be processed with a filing date of May 3, 1994.

72. The Patent Office decisions denying the applicants' petitions to revive the '505 application and to treat the '080 application as a continuation of the '505 created significant, indeed insurmountable, impediments to the applicants' desire to recant and reverse their earlier abandonment of the '505 application and the alleged invention consisting of the amplification method presented therein. Among other problems raised by those decisions, the applicants knew that unless they could manipulate the priority to which the '080 application was entitled, their own prior publications would constitute statutory bars to patentability.

APPLICANT'S EFFORTS TO FRAUDULENTLY MANUFACTURE CLAIMS OF PRIORITY FOR THE '080 APPLICATION

73. In light of the foregoing fatal impediments to patentability of the method claims presented in the '080 application, the applicants then proceeded to manufacture a scheme to undermine the Patent Office decisions denying their ability to claim priority for the '080 application back through the '505 application. As the first step in that scheme, on December 5, 1995, the applicants submitted a preliminary amendment in the '080 application in which they claimed, for the first time, that the '080 application was a divisional application to the '657 application that the applicants filed on March 8, 1995 to pursue the instrument claims and invention first claimed in the '468 application, as alleged in paragraph 60 of this Amended Complaint.

74. The applicants' efforts regarding and claim of priority of the '080 application to the '657 application were improper for several reasons. First, as indicated above, the applicants had previously elected to pursue only the instrument claims in the '657 application. As such, and without prior disclosure to or permission from the Patent Office, the applicants impermissibly "shift" their method claims back to the claim 24 of the '920 application, and subject to the restriction of July 20, 1990, in that application. As noted hereinabove, the applicants originally filed the chain of applications that included the '657 application in order to prosecute the claims directed to an invention regarding an instrument for performing assays for target polynucleotides, Second, the applicants' efforts to claim that the '080 application was a divisional application of the '657 application was additionally defective because the specification and claims of the '080 patent are different from and not supported by the specification and claims of the '657 application.

75. However, in applicants' zeal to implement their inequitable scheme to overcome the Patent Office determination that the claims of the '080 application were only entitled to claim priority as of May 3, 1994, the applicants overlooked an even more significant defect in their effort to claim priority for the '080 application to the '657 application. Under the patent laws and regulations, an application is only entitled to claim priority to a prior application if such application was co-pending at some point in the "life" of the two applications. Yet, with respect to the applicants' scheme to advance the priority of the '080 application, their claim to priority of the '080 application to the '657 application violated this requirement of co-pendency because the applicants did not file the '657 application until March 8, 1995, nearly one year after the applicants filed the '080 application! The applicants failed to advise the Patent Office of this lack of co-pendency in their December 5, 1995, preliminary amendment. Gen-Probe is informed and believes, and based thereon alleges, that the applicants knew that the representation that the '080 application was a divisional of the '657 application was improper, and that the applicants made this representation with the intent of deceiving and misleading the Patent Office.

APPLICANTS' MISREPRESENTATIONS ABOUT MULLIS, U.S. PATENT NO. 4,683,202.

76. Despite their intentional failure to disclose the fatal defect in their claim of priority in the '080 application, the applicants continued to prosecute the claims of that application. During the course of that continued prosecution of the '080 application, the Patent Office rejected applicants' proposed claims to a method of nucleic acid amplification on the grounds of the disclosure of prior art that included the Mullis patent (U.S. Patent 4,683,202). In response, the applicants argued that the prior art did not teach or disclose purification of a target nucleic acid prior to amplification, yet, that argument was false. Specifically, in their December 5, 1995 Preliminary Amendment, the applicants made the following statements regarding the Mullis patent:

> Applicants submit the Examiner's conclusions is the product of an improper picking and choosing of selective disclosure from the cited references to obtain Applicants' invention and that when the references are considered for all that they teach the references do not disclose or suggest Applicants' invention. For example, while it is true that Mullis (U.S. No. 4,683,202) discloses DNA amplification and some improved sensitivity and ability to isolate

specific nucleoside sequences, Mullis also teaches away from Applicants' invention. Specifically, Mullis teaches:

> The present invention obviates the need for extensive purification of the product from a complicated biological mixture.

(Col. 2, lines 32-34). Mullis reaffirmed this teaching later in the disclosure:

> ***It is not necessary that the sequence to be amplified be present initially in a pure form; it may be a minor fraction of a complex mixture ... or a portion of a nucleic acid sequence due to a particular microorganism which organism might constitute only a very minor fraction of a particular biological sample.***

(***Col. 5, lines 49-56***). Plainly, Mullis teaches that the amplification method of his invention does not include purification before amplification and, in fact, does not require purification. Thus, Mullis teaches away from Applicants' invention.

12/5/95 Preliminary Amendment at p. 16 [emphasis added]. The applicants repeated this representation to the Patent Office regarding the teachings of Mullis in the Amendment filed on October 18, 1996, at pp. 11-12.

77. The paragraph cited by the applicants from the Mullis patent reads in whole:

> Any source of nucleic acid, in ***purified*** or nonpurified form, can be utilized as the starting nucleic acid or acids, provided it contains or is suspected of containing the specific nucleic acid sequence desired. Thus, the process may employ, for example, DNA or RNA, including ***messenger RNA***, which DNA or RNA may be single stranded or double stranded. In addition, a DNA-RNA hybrid which contains one strand of each may be utilized. A mixture of any of these nucleic acids may also be employed, or ***the nucleic acid produced from a previous amplification reaction*** herein using the same or different primers may be so utilized. The specific nucleic acid sequence to be amplified may be only a fraction of a larger molecule or ***can be present initially as a discrete molecule, so that the specific sequence constitutes the entire nucleic acid***. It is not necessary that the sequence to be amplified be present initially in a pure form; it may be a minor fraction of a complex mixture, such as a portion of the .beta.-globin gene contained in whole human DNA or a portion of nucleic acid sequence due to a particular microorganism which

> organism might constitute only a very minor fraction of a particular biological sample. The starting nucleic acid may contain more than one desired specific nucleic acid sequence which may be the same or different. Therefore, the present process is useful not only for producing large amounts of one specific nucleic acid sequence, but also for amplifying simultaneously more than one different specific nucleic acid sequence located on the same or different nucleic acid molecules.

(Col. 5, lines 34-63), emphasis added, underlined is the portion selectively cited by the applicants). Thus, contrary to the applicants' representation to the Patent Office, the omitted portion of the paragraph cited by the applicants expressly teaches that ***purification can and should be used*** with the amplification invention, thereby validating the Examiner's rejection.

78. In addition to the excluded portion of the paragraph of the Mullis patent, the very next paragraph in the Mullis patent states:

> The nucleic acid or acids may be obtained from any source, for example, from plasmids such as pBR322, from cloned DNA or RNA, or from natural DNA or RNA from any source, including bacteria, yeast, viruses, and higher organisms such as plants or animals. ***DNA or RNA may be extracted from blood, tissue material such as chorionic villi or amniotic cells by a variety of techniques such as that described by Maniatis et al., Molecular Cloning A Laboratory Manual (New York: Cold Spring Harbor Laboratory, 1982), pp. 280-281.***

(Col. 5, line 64-col. 6, line 6 [emphasis added]). Maniatis, et al., is a methods manual that teaches a variety of techniques for purifying RNA or DNA from blood, tissue or other cellular material. At pages 197-198 of Maniatis, et al., this reference teaches the purification of mRNA on a solid support using a probe. Thus, the very next paragraph of the Mullis patent following the selective citation by the applicants incorporates a disclosure of ***how*** to purify a sample prior to amplification. Gen-Probe is informed and believes, and based thereon alleges, that the applicants' knowingly and intentionally misrepresented the teachings of the Mullis reference to the United States Patent and Trademark Office. The applicants' selective removal of the first half of the cited paragraph that fully supported the Examiner's rejection based on Mullis and the following paragraph's implicit teaching of how to purify a sample prior to amplification evidence the knowing and intentional nature of the applicants' misrepresentation of the Mullis reference.

APPLICANTS' MISREPRESENTATIONS IN THE REQUEST FOR CERTIFICATE OF CORRECTION FILED FOR THE '338 PATENT

79. On December 14, 1998, the applicants submitted a Request for Certificate of Correction for the '338 patent. Gen-Probe is further informed and believes, and based thereon alleges, that in this Request for Certificate of Correction the applicants represented to the U.S. Patent and Trademark Office that the '505 application was unintentionally abandoned.

80. Gen-Probe is informed and believes, and based thereon alleges, that the applicants made this representation knowing that the true facts were that the '505 application was intentionally abandoned.

81. In the December 14, 1998, Request for Certificate of Correction for the '338 patent, the applicants identified a fatal defect in the claimed priority for the '338 patent involving patent application Serial No. 07/648,468, and patent application Serial No. 07/136,920. By the December 14, 1998, Request for Certificate of Correction, the applicants attempted to cure that fatal defect by, in part, representing to the Patent Office that the applicants did not discover the fatal priority defect prior to the issuance of the '338 patent.

82. The applicants also represented in the Request for Certificate of Correction for the '338 patent that the mistakes for which correction was sought were of minor character, and resulted from errors made in good faith by the applicants.

83. Gen-Probe is informed and believes, and based thereon alleges, that through the aforementioned Certificate of Correction, the applicants knowingly and intentionally misrepresented its knowledge regarding this priority defect with the intent of deceiving the U.S. Patent and Trademark Office. In truth, the applicants were aware of the defect in its claim of priority for the '338 patent well before the issuance of the '338 patent. In addition, Gen-Probe is informed and believes, and based thereon alleges, that the applicants knew that the mistakes for which correction was sought were not of minor character, and did not resulted from errors made in good faith by the applicants, and intentionally misrepresented this to the Patent Office.

84. The applicants further represented in the Request for Certificate of Correction for the '338 patent that the '338 patent was a continuation of the '826 application. However, the '338

patent could not be a continuation of the '826 application, because the disclosure of the '338 patent was not identical to the disclosure of the '826 application.

85. Gen-Probe is informed and believes, and based thereon alleges, that the applicants knew that the '338 patent could not be a continuation of the '826 application, and that through the aforementioned Certificate of Correction, the applicants knowingly and intentionally misrepresented its knowledge with the intent of deceiving the U.S. Patent and Trademark Office.

APPLICANTS' MISREPRESENTATION IN THEIR PETITION UNDER 37 C.F.R. §1.182

86. On December 14, 1998, the applicants filed a petition with the Patent Office under 37 C.F.R. § 1.182 to amend the claimed priority stated in application Serial No. 08/124,826 (the "'826 application") so as to attempt to cure further fatal defects in the priority claim for the '338 patent. At the time of such petition, however, the applicants had previously intentionally abandoned the '826 application.

87. In order to overcome the impediment to its effort to cure the fatal defect in the claim of priority for the '338 patent arising in the '826 application, the applicants argued in its petition to amend the '826 application that an intentionally abandoned application could be amended after abandonment. Gen-Probe is informed and believes, and based thereon alleges, that the applicants misrepresented legal authority to the U.S. Patent and Trademark Office. Gen-Probe is informed and believes, and based thereon alleges, that the applicants' knew that the legal authority it presented to the Patent Office to support its petition to amend the '826 application and cure the otherwise fatal priority defect in the '338 patent did not stand for the proffered proposition and that the applicants knowingly misrepresented this legal authority to the U.S. Patent and Trademark Office with the intent to deceive the Patent Office.

APPLICANTS' FAILURE TO DISCLOSE ALL ART KNOWN TO IT DURING THE PROSECUTION OF THE '338 PATENT

88. During the course of its prosecution of the claims that ultimately issued in the '338 patent, the applicants concurrently presented counterpart patent applications and patent claims to international and foreign patent offices. During the course of the examination and prosecution of those counterpart applications and patent claims, the European Patent Office, for one, identified and

disclosed to the applicants prior art material to the prosecution of the '338 patent claims that was not before or considered by the United States Patent and Trademark Office in the examination of the '338 patent. For example, among this prior art of record in the European Patent Office proceedings but not in the United States Patent Office was the following: EP-A-0200362 (Cetus Corp.); EP-A-0265244 (Amoco Corp.); EP-A-0154505 (Ortho Diagnostic Systems, Inc.); WO-A-8605815 (Genetics Int'l Inc.); WO-A-8701730 (Yale Univ.).

89. Notwithstanding the applicants' duty to disclose all material information to the Patent Office, the applicants failed to disclose the foregoing prior art to the Patent Office. In addition, upon filing the application which led to the issuance of the '338 patent, the applicants did not submit a Form 1449, citing all known material art to the Patent Office, as required to ensure that all known material art is considered by the Patent Office. Gen-Probe is informed and believes, and based thereon alleges, that the applicants knowingly and intentionally failed to submit a Form 1449 and concurrently failed to apprise the Patent Office of prior art identified in the European Patent Office proceedings in order to deceive the Patent Office and prevent it from considering all relevant prior art.

COUNT SIX

UNENFORCEABILITY OF THE '338 PATENT DUE TO LACHES.

90. Gen-Probe repeats, repleads and incorporates herein the allegations of paragraphs 1 through 89 of this complaint.

91. Gen-Probe is informed and believes, and based thereon alleges, that the applicants intentionally, unreasonably, and inexcusably delayed in the prosecution of the invention claimed in the '338 patent, and that Gen-Probe was prejudiced by this delay. Accordingly, the '338 patent is unenforceable against Gen-Probe due to laches.

WHEREFORE, Gen-Probe prays as follows:

1. For declarations:

a. That Gen-Probe's products do not and will not infringe any valid claims of '338 patent;

b. That the claims of the '338 patent are invalid;

c. That the claims of the '338 patent are unenforceable; and

d. Of Gen-Probe's rights and obligations under the License;

2. For a preliminary and permanent injunction enjoining and restraining defendant, its respective officers, agents, servants, employees and attorneys, and all persons acting in concert with them, and each of them:

a. From making any claims to any person or entity that Gen-Probe's products infringe the '338 patent;

b. From interfering with, or threatening to interfere with the manufacture, sale, license, or use of Gen-Probe's products by Gen-Probe, its allied parties, distributors, customers, licensees, successors or assigns, and others; and

c. From instituting or prosecuting any lawsuit or proceeding, placing in issue the right of Gen-Probe, its allied parties, distributors, customers, licensees, successors or assigns, and others to make, use or sell Gen-Probe's products;

3. For recovery of Gen-Probe's damages, as proven at time of trial, and restitution of any sums by which Vysis has been unjustly enriched;

4. For recovery of Gen-Probe's attorneys' fees and costs of suit incurred herein; and

5. For such other and further relief as the Court may deem just and proper.

Dated: March 12, 2001

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